

# 晚侏罗世隐翅虫科(鞘翅目)化石

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本文所描述的隐翅虫科 2 新属 3 新种系于 1984 年秋采于山东省莱阳县南李格庄莱阳组第三段。时代为晚侏罗世(亦有人认为是早白垩世)。

隐翅虫科是鞘翅目现存的一个大科,已描述的种类超过 28,000 种。化石记录中生代仅 1 属 1 种,产于我国辽西,余皆为新生代,计有 46 属 900 多种。第三纪的产地分别为波罗的海琥珀 (Baltic Amber),联邦德国罗特 (Rott)、巴登 (Baden),法国埃克斯昂普罗旺斯 (Aix-en-Provence)、阿尔萨斯 (Alsace),意大利西西里琥珀 (Sicily Amber),南斯拉夫克罗地亚 (Croatia),英国怀特 (Wight),美国白河 (White River),佛罗里圣特 (Florissant),格林河 (Green River),墨西哥恰帕斯琥珀 (Chiapas Amber),澳大利亚新南威尔士 (New South Wales) 以及我国山东山旺等地。第四纪产地主要发现于联邦德国巴伐利亚 (Bavaria = Bayern),民主德国威勒绍森 (Willershausen) 和波兰加利曾 (Galizien) 等地。

晚侏罗世无疑的隐翅虫化石的发现,为研究这个科的起源和演化提供了新资料。标本保存在山东省博物馆。

## 鞘翅目 Coleoptera

### 隐翅虫科 Staphylinidae Latreille, 1802

#### 一、中生隐翅虫属 *Mesostaphylinus* 新属

模式种: *Mesostaphylinus laiyangensis* 新属,新种

属征: 大型纤细种类;头大,长方形;触角丝状,11 节,基部第 1 节长且粗;上颚发育,显弯;前胸背板短于头,后缘窄于前缘,前侧角明显,后侧角浑圆;鞘翅短,端部截形;足粗短,前基节长,股节与胫节等长,后者端部具刺;跗节 5 节,后跗第 1 节长,约是第 2 节长的 2 倍;腹部 7 节,腹末尾须一对。

比较: 这个新属以长方形的头部和纤细大型的虫体与我国中侏罗统的 *Prostaphylinus* Lin 容易区别。新生代的属也无此特征者。新属多少与东洋区现代的属 *Mitomorphus* Kr. 有些相似,但以虫体大;头为明显的长方形;无颈;后跗第 1 节长,约为第 2 节长的 2 倍而与后者区别。

分布时代: 晚侏罗世。

莱阳中生隐翅虫 *Mesostaphylinus laiyangensis* 新属,新种 (图版 I:1,图 1)

一块虫体右侧面保存标本：红褐色；登记号：L84136（正模标本）。

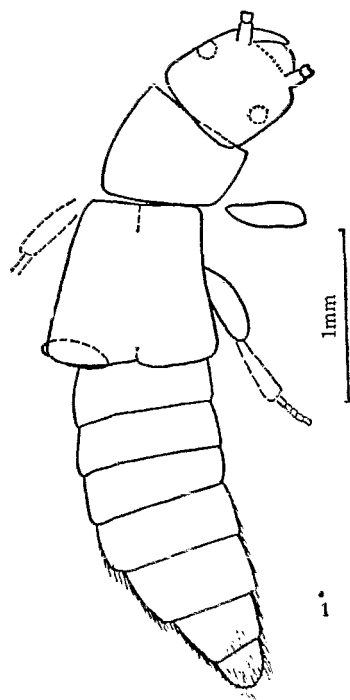


图1 莱阳中生隐翅虫 *Mesostaphylinus laiyangensis* gen. et sp. nov.  
登记号：L84136。

头长为宽的1.5倍；复眼难以分辨，似小，位于头中部两侧。触角长为头长的1.5倍，第1节较粗长，第2节细短，3—11节长显胜于各自宽，各节端部显宽于基部。上颚内缘无齿。无颈；前胸背板长约为头长的五分之四。鞘翅长为前胸背板长的1.5倍。足各节均具短毛，股节和胫节上具稀疏的刚毛。前足基节粗，略短于股节，后者棒状，显粗于胫节，跗节显短于胫节，基部1—4跗节很短，长不及各自宽，第5节细，长约为第3、4两节之和。后足跗节略短于胫节，后跗第1节粗于第2节，长为后者的近2倍，余各节渐细渐短。腹部长柱状，第7节色淡，具长毛，腹末具2个尾须，大三角形，长与第7节近于相等，亦具长毛。

虫体长17.6毫米，宽（以右鞘翅2倍计算）3.2毫米。

产地层位：山东莱阳南李格庄；莱阳组第三段。

## 二、石隐翅虫属 *Laostaphylinus* 新属

模式种：*Laostaphylinus nigrifellus* gen. et sp. nov.

属征：小型纤细种类。头大，近方形；上颚短，较直；下颚须短，各节近于等长。前胸背板近于方形，无饰，前缘略宽于后缘，前侧角尖锐，或多或少向前突出，后侧角浑圆。鞘翅短，后缘平截。足粗短，跗节5节，后跗第1节短。腹部7节，腹末具毛丛，无尾须。

比较：这个新属与东洋区的现代属 *Anchocerus* Fauv. 较相似，但以前胸背板前缘宽于后缘；后跗第1节短等特征可与后者区别。

分布时代：晚侏罗世。

### 暗石隐翅虫 *Laostaphylinus nigrifellus* 新属、新种（图版1:2；图2）

一块虫体背面保存标本；暗褐色；登记号：L84137（正模标本）。

头长（不包括上颚）与宽近于相等，头后缘较平直，显窄于前胸背板前缘；上颚细，端部甚尖锐；下颚须可见端部3节，各节长、宽近于相等；复眼不清晰，似中等大小，位于头中部偏前的两侧。前胸背板长略胜于头长，本身长、宽近于相等，前缘略呈波状弯曲，后缘较平直。鞘翅长为前胸背板长的1.25倍，其后缘稍宽于前缘。后足股节与胫节等长，前者棒状，显粗于后者；胫节细，端部放宽，呈窄三角形，跗节长约为胫节长的三分之二，各跗节长度近于相等，端部渐细。腹部柱状，末端3节的两侧具长毛，腹末浑圆，未见明显的尾须。

虫体长4.94毫米，宽0.98毫米。

产地层位：山东莱阳南李格庄；莱阳组第三段。

### 棕石隐翅虫 *Laostaphylinus fuscus* 新种（图版1:3；图3）

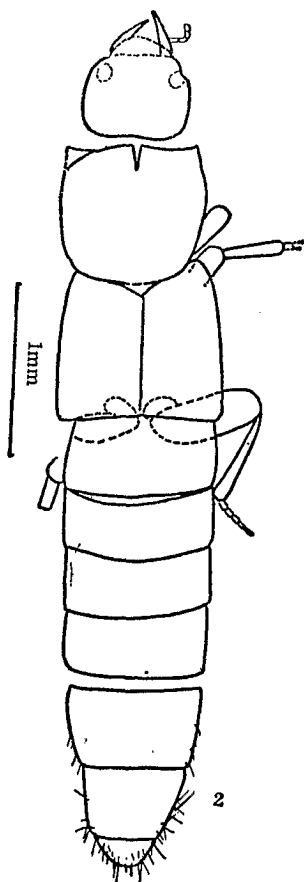


图2 暗石隐翅虫 *Laostaphyltnus nigrifellus* gen. et sp. nov.

登记号: L84137

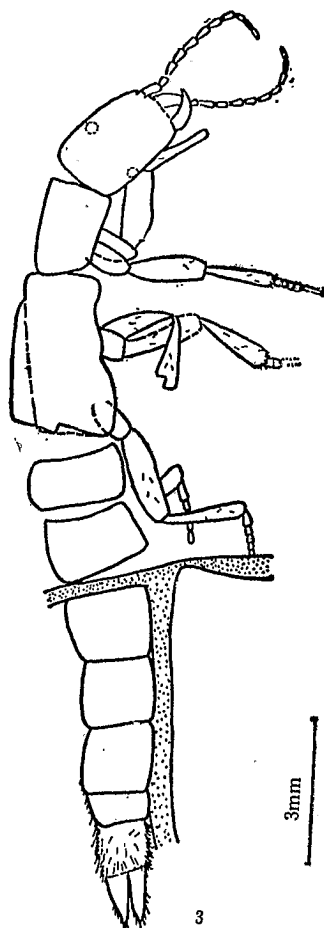


图3 棕石隐翅虫 *Laostaphyltnus fuscus* sp. nov. 登记号: L84138

一块虫体背面保存标本;淡棕色;登记号: L84138 (正模标本)。

头长、宽近于相等,略窄于前胸背板前缘;上颚中等粗细,较短较直;触角仅保存基部,第1节粗,长柱状,长显胜于宽,第2节细短。复眼保存不清晰,似位于头中部两侧,中等大小。前胸背板宽略胜于长,无饰,前、后缘等宽。鞘翅梯形,后缘平直,宽约为前缘的1.5倍。中足保存完整,股节棒状,胫节和跗节颜色较浅,胫节显窄于股节,近于三角形,跗节甚窄且短,各节近于等长。腹部长筒状,1—4腹节各节横方形,宽超过长的2倍,5、6节后缘显窄于各自的前缘,4—7节两侧具排列成行的长毛,腹末具长毛。

虫体长4.07毫米,宽1.01毫米。

比较: 这个新种颇似上述 *L. nigrifellus* Zhang, sp. nov.;所不同的是虫体色淡;头较大;前胸背板宽胜于长,前、后缘等宽;鞘翅梯形,后缘显宽于前缘;腹部两侧长毛排列成行等。

产地层位：山东莱阳南李格庄；莱阳组第三段。

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## THE LATE JURASSIC FOSSIL STAPHYLINIDAE (COLEOPTERA) OF CHINA

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This report is concerned with three new species belonging to two new genera of staphylinid beetles, collected from the third Member of Laiyang Formation by the author in autumn of 1984. The locality is in Nanlighezhuang Village of Laiyang County, Shandong Province. The present writer considers the age of the Laiyang Formation yielding fossil insects as Late Jurassic Epoch.

### *Mesostaphylinus* gen. nov.

Type species. *Mesostaphylinus laiyangensis* gen. et sp. nov.

Diagnosis: Body slender and rather large in size. Head large, rectangular. Antennae filiform, consisting of eleven segments, with the 1st segment obviously broad and elongate. Mandibles well developed and clearly curved. Pronotum shorter than head, its anterior margin broader than the posterior, with sharp anterior and round posterior lateral angles. Elytra short, with posterior margin truncated. Legs stout and short. Anterior coxae long. Femora as long as tibiae, the latter with terminal setae. Tarsi five-segmented. Metatarsus of posterior leg elongate, about twice of the length of the second. Abdomen consisting of seven segments, with a pair of cerci on terminal part.

Comparison: This new genus is somewhat allied to Oriental genus *Mutomorphus* Kr., but differs from it in the following respects: rather large size; rectangular head; absence of neck; and longer metatarsi of posterior legs.

*Mesostaphylinus laiyangensis* gen. et sp. nov. (Pl. I: 1; fig. 1)

No. L84136. Reddish brown in color. Length of head about one and a half times its width. Eyes seem to be small on middle lateral side of head, though not well-preserved. Elytra longer than head. Legs with short hairs, few and scattered setae on femora and tibiae. Tarsi of anterior legs much shorter than tibiae, with basal four segments very short and fifth elongate. Posterior tarsi with 1st segment broader than second and about twice as long as it. Abdomen cylindrical, the seventh segment light in color, with long hairs. Cerci large, triangular, as long as the 7th segment of abdomen, and also with long hairs.

Total length 17.6 mm, width 3.2 mm.

Horizon and Locality: The third Member of Laiyang Formation; Nanligeshuang of Laiyang, Shandong Province.

### ***Laostaphylinus* gen. nov.**

Type species. *Laostaphylinus nigritellus* gen et sp. nov.

Diagnosis: Body slender, small in size. Head large, subquadrate. Mandibles short, straight. Segments of maxipalpus short, about equal in length. Pronotum nearly quadrate, without setae and punctures. Anterior margin of pronotum a little broader than posterior, with the sharp anterior lateral angles more or less produced forward, and with round posterior angles. Elytra short, with truncated posterior margin. Legs short and stout, tarsi five-segmented. Posterior tarsi with the 1st segment short. Abdomen consisting of seven segments, with long hairs on terminal part. Cerci absent.

Comparison: This new genus resembles Oriental genus *Anchocerus* Fauv. Distinguished from the latter by the broader anterior margin of pronotum and the shorter basal segment of posterior tarsi.

### ***Laostaphylinus nigritellus* gen. et sp. nov. (Pl. I: 2; fig. 2)**

No. L84137. Color dark brown. Head obviously narrower than pronotum. Mandibles slender, much sharp in terminal part. Eyes badly preserved but seem to be moderately large in size. Pronotum a little longer than head and about as long as its own width. Posterior margin of elytra a little broader than anterior. Posterior femora clubbed, much stouter and as long as tibiae, the latter narrow triangular in shape, broadening distally. Tarsi with all five segments about equal in length. Abdomen cylindrical with long hairs on lateral parts of last three segments.

Total length 4.94 mm, width 0.98 mm.

Horizon and Locality: Same as the preceding species.

### ***Laostaphylinus fuscus* sp. nov. (Pl. I: 3; fig. 3)**

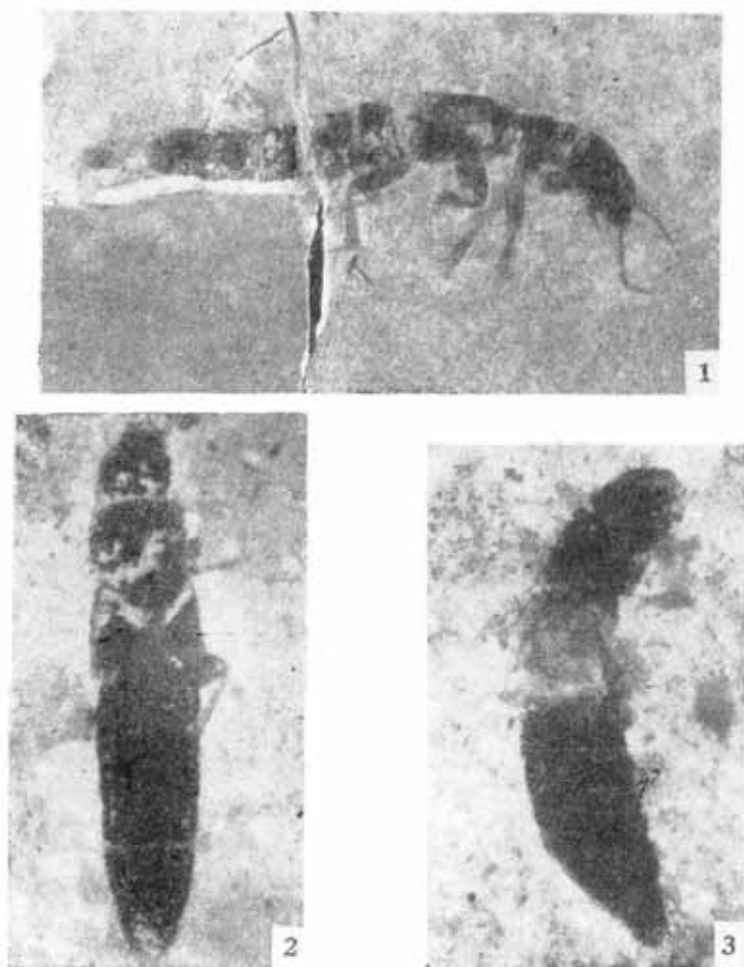
No. L84138. Light brown in color. Head somewhat narrower than anterior margin of pronotum. Mandibles short and straight. Width of pronotum a little longer than its length, without setae and punctures. Anterior and posterior margins of pronotum about equal in width. Elytra trapezoid, posterior margin one and a half times as broad as anterior. Tibiae of middle leg subtriangular, much narrower than femora. Tarsi rather narrow and short, about equal in length, five-segmented. Abdomen with a row of long hairs on lateral sides of fourth to seventh segments.

Total length 4.07 mm, width 1.01 mm.

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Comparison: This new species is closely similar to *L. nigritellus* Zhang, sp. nov. described above in this paper. But separated from *L. nigritellus* in having light color body; larger head; broader pronotum with anterior and posterior margins equal in length; trapezoid shaped elytra; and in having a row of hairs on lateral sides of 4—7th segments of abdomen.

Horizon and Locality: Same as the preceding species.



1. *Mezostaphyllinus laiyangensis* gen. et sp. nov.

×4.2, Holotype; 山东莱阳南李格庄; 莱阳组第三段(上侏罗统); 登记号: L84136。

2. *Laostaphyllinus nigritellus* gen. et sp. nov.

×14.7, Holotype; 山东莱阳南李格庄; 莱阳组第三段(上侏罗统); 登记号: L84137。

3. *Laostaphyllinus fuscus* sp. nov.

×16.0, Holotype; 山东莱阳南李格庄; 莱阳组第三段(上侏罗统); 登记号: L84138。